

REMARKS

The Specification:

The specification has been amended to correct typographical errors. Also, the notation for the power of every input channel (λ_1 – λ_n) before it enters into the self-adjusting OADM 304 has been changed from I_n to P_{inp} to clarify the meaning carried thereby. As such, no new matter has been introduced by the amendment.

The Drawings:

In amended Figure 4, the minor editorial problems in the notations λ_1 and λ_1' for the dropped and added channels, respectively, have been corrected. Support for the notations is found in the specification on page 10, line 14 – page 11, line 10. As such, no new matter has been introduced by the amendment.

The Claims:

Currently, claims 40-42 are pending. Claims 1-39 have been canceled. Claims 28-29 have been rejected under 35U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regard as the invention. Claims 28-29 have been rejected under 35U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,208,441 ("Jones et al.") combined with U.S. Patent No. 6,233,076 ("Iwata et al.").

1. I. None of the Cited References, Taken Individually or Collectively, Teaches or Suggests "Attenuating the power level of add channel" as Recited in Independent Claim 40.

The added Claim 40 recites:

40. A method for controlling the power of an add channel of an optical add-drop multiplexer (OADM) used to add the add channel to a wavelength division multiplexed (WDM) signal including one or more express WDM channels of equal power and to drop a drop channel from the WDM signal, the method comprising:

comparing the power P_{add} of the add channel with the power P_{drop} of the drop channel; and

attenuating the power P_{add} to match the attenuated power $P_{express}$ of the express WDM channels, according to the equation

$$P_{express} = P_{add} - L + 10\log(1 - y\%) - L_4 \dots$$

Support for the limitations of claim 40 is found in the specification on page 10, line 14 – page 12, line 11 and Figure 4. Accordingly, no new matter has been added.

Jones et al. teaches that the add/drop multiplexer 16 has a finite loss L_{ADM} and the power level of the add branch (at 30) can be set to $L_A - L_{ADM}$, where L_A is the power level of the drop branch (at 28), assuming that the loss from the trunk-in to the drop is equal to the loss of the add to the trunk-out (column 4, lines 52-57). In general, the loss from the trunk-in to the drop may be different than the loss of the add to the trunk-out. Thus, the difference ($L_1 - L_4$) between the losses L_1 and L_4 in Figure 4 should be taken into account when the power level of the add branch is adjusted to match the power level of the express WDM channels. Consequently, the Jones et al. fails to specifically teach "**attenuating the power P_{add} ... according to the equation...**" as recited in claim 40. In addition, as asserted by the Examiner, Jones et al. do not specify attenuating the power of the add channel to match the power of the express WDM channel/s.

Iwata et al. teach attenuating the power of add channel based on **the total power** of WDM signal that includes both the express channel/s and dropped channel. Thus, Iwata et al. fail to teach "**comparing the power P_{add} of the add channel with the power P_{drop} of the drop channel**" and "**attenuating the power P_{add} to match the attenuated power $P_{express}$... according to the equation...**" as recited in claim 40.

To establish a prima facie case of obviousness, the prior art reference must teach or suggest all the claim limitations. MPEP §2142. Applicants assert that none of the cited references, taken individually or collectively, teach "**attenuating the**

power P_{add} to match the attenuated power $P_{express}$... according to the equation...

as recited in claim 40. Accordingly, Applicants submit that claim 40 is allowable over the cited references.

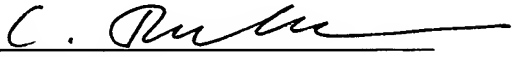
Claims 41 and 42 depend from and further limit independent claim 40, and as such, include all the limitations of independent claim 40, rendering them patentable also. For these reasons, Applicants respectfully request that indication of allowance for claims 40-42 be made.

CONCLUSION

Based on the reasons as set forth above, Applicants respectfully request allowance on claims 40-42.

In the event that a telephone conference would expedite prosecution of the application, the Examiner is respectfully invited to contact the undersigned by telephone at the number set out below.

Respectfully submitted,


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Amendments to the Drawings:

The attached sheet of drawings includes changes to Figure 4. This sheet, which includes Figure 4, replaces the original sheet including Figure 4.

Attachment: Replacement Sheet